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Implementation of video-based think-pair-share method to enhance industrial relations learning outcomes among vocational school students

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Abstrak

Tujuan penelitian ini adalah meningkatkan hasil belajar siswa kelas XI MPLB SMK Bhakti Karya Karanganyar pada materi hubungan industrial. Penelitian ini menggunakan metode Penelitian Tindakan Kelas (PTK) yang dilaksanakan sebanyak tiga siklus, masing-masing siklus terdiri dari dua kali pertemuan. Untuk mendukung pendekatan pembelajaran digunakan video pembelajaran yang dipadukan dengan metode think-pair-share. Subjek penelitian ini adalah guru dan siswa kelas XI MPLB SMK Bhakti Karya. Fokus penelitian ini adalah pada hasil belajar siswa, aktivitas siswa dalam proses pembelajaran, dan keterampilan mengajar guru. Penelitian ini menggunakan pendekatan tes dan non-tes untuk memperoleh data. Instrumen tes menghasilkan data kuantitatif berupa nilai hasil belajar siswa, sedangkan instrumen non-tes, seperti lembar observasi aktivitas siswa dan keterampilan guru, menghasilkan data kualitatif. Hasil penelitian menunjukkan adanya peningkatan pada ketiga aspek tersebut dari siklus I hingga siklus III. Rata-rata kecakapan guru meningkat dari kategori baik menjadi sangat baik, yaitu dari 2,37 menjadi 3,75. Aktivitas siswa dalam pembelajaran juga meningkat, dengan rata-rata nilai dari 25,87 menjadi 27,30. Nilai rata-rata hasil belajar siswa meningkat dari 50 menjadi 80, dan pada siklus III, tingkat ketuntasan belajar mencapai 84,84%. Penerapan think-pair-share berbasis video pembelajaran meningkatkan kualitas proses pembelajaran dan hasil belajar siswa dalam materi hubungan industrial, menurut temuan penelitian.

Kata kunci: aktivitas belajar; hasil belajar; penelitian tindakan kelas; think-pair-share; video pembelajaran

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Abstract

This study aimed to enhance the learning outcomes of Grade XI Office Administration and Business Services (OABS) students at SMK Bhakti Karya Karanganyar in Industrial Relations subject matter. Methods: A Classroom Action Research (CAR) methodology was employed, implemented across three cycles with two meetings per cycle. Video-based learning was integrated with the think-pair-share instructional method to support the pedagogical approach. The research subjects comprised the teacher and 33 students from Grade XI OABS at SMK Bhakti Karya. The investigation focused on three key aspects: student learning outcomes, student engagement during the learning process, and teacher instructional competencies. Data Collection: Both quantitative and qualitative data collection instruments were utilized. Test instruments generated quantitative data on student achievement, while non-test instruments, including student activity observation sheets and teacher performance evaluation forms, provided qualitative insights. Results: The findings demonstrated consistent improvements across all three measured aspects from Cycle I through Cycle III. Teacher instructional competency advanced from "good" to "excellent" categories, with average scores increasing from 2.37 to 3.75. Student engagement showed notable enhancement, with average scores rising from 25.87 to 27.30. Most significantly, student learning outcomes improved substantially, with mean scores increasing from 50 to 80, and learning mastery rates reaching 84.84% in Cycle III. Conclusion: The implementation of video-based think-pair-share methodology successfully enhanced both the quality of the instructional process and student learning outcomes in Industrial Relations subject matter.

Keywords: classroom action research; learning activities; learning outcomes; think-pair-share; video-based learning

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Introduction

Vocational Senior High Schools (SMK) are designed to prepare students as competent and skilled workers ready for higher education or immediate workforce entry (Abdurrohman & Mahmudahi, 2022). Consequently, SMK education emphasizes practical skill mastery coupled with critical thinking capabilities essential for addressing workplace and industrial challenges. This competency enhancement is exemplified through the Human Resource Management curriculum, specifically the Industrial Relations subject matter, which plays a crucial role in preparing students for workplace relationship dynamics.

Industrial relations can be defined as a system governing relationships among workers, employers, and government entities within the work environment, as stipulated in Law No. 13 of 2003 concerning Employment. A comprehensive understanding of this concept is particularly vital for SMK students, especially those in the Office Administration and Business Services (OABS) program, given their prospective roles as administrative personnel directly interfacing with employment aspects in business and industrial settings. Therefore, this subject is taught to Grade XI OABS students at SMK Bhakti Karya. However, implementation has revealed several constraints

affecting classroom learning effectiveness, including limited student active participation during the learning process, insufficient infrastructure resulting in restricted learning media availability, and lecture-dominant teaching methods that induce student boredom and diminish critical thinking. These factors contribute to suboptimal student learning outcomes, particularly when addressing contextual and abstract content such as industrial relations.

Student achievement levels in meeting established learning objectives serve as crucial indicators of instructional process effectiveness. According to Nurita (2018), the selection of appropriate learning models or methods represents one of the primary factors influencing learning outcomes. Effective pedagogical approaches enhance student comprehension of subject matter. Learning achievement can be characterized as a fundamental component of the educational process that demonstrates students' success in meeting teacher-established learning objectives. As Nurita (2018) emphasized, learning model or method selection significantly impacts learning outcomes, with effective methodological choices enhancing student understanding of instructional content.

Classroom media utilization substantially supports student comprehension of abstract concepts. Furthermore, appropriate resource selection in the educational process can enhance student motivation to learn, thereby influencing academic outcomes. Rahman et al. (2023) assert that video can be considered an instructional delivery process supporting students in achieving learning objectives across affective, cognitive, and psychomotor domains. Educational videos can be independently designed by teachers to transform abstract learning materials into more engaging and contextual content. Video utilization combining visual and auditory elements can facilitate student understanding of industrial relations concepts that may be difficult to comprehend through lecture-only approaches. Additionally, video implementation can simultaneously accommodate visual, auditory, and kinesthetic learning styles. This model provides stimuli for student thinking and peer interaction, creating more enjoyable and meaningful learning experiences. This aligns with previous research findings. Earlier research published by Rachmawati and Erwin (2022) demonstrated that the think-pair-share paradigm supported by video effectively enhanced student understanding of Indonesian Language instruction. Similarly, research conducted by Ardianti et al. (2016) showed comparable results, with this model and media improving student learning outcomes in living organism classification materials. Similar findings were reported by Putri and Winanto (2023), who proved that the think-pair-share model with video media enhanced active participation and student learning outcomes. Although many studies have been conducted at the elementary school level, similar strategies can be applied at the vocational school (SMK) level, as this method and media demonstrate significant potential and suitability for Human Resource Management subject matter requiring contextual visualization and critical thinking from students.

Based on this background, classroom action research was conducted with the title "Implementation of Video-Based Think-Pair-Share to Enhance Grade XI OABS Student Learning Outcomes in Industrial Relations Subject Matter at SMK Bhakti Karya." This study aims to address identified challenges, shift focus from teacher-centered to student-centered approaches, and motivate all students to actively participate in learning activities, thereby creating more meaningful and enjoyable learning processes while ensuring learning objective achievement.

Research Methods

This study employed Classroom Action Research (CAR) using the Kemmis and McTaggart model, comprising four stages: planning, action implementation, observation, and reflection (Mulyasa, 2019; Nanda et al., 2021). Actions were conducted across three cycles aimed at improving student learning outcomes, student engagement during the learning process, and teacher instructional competencies through video-based think-pair-share model implementation. Research subjects included 33 Grade XI OABS students at SMK Bhakti Karya Karanganyar for the 2024/2025 academic year, consisting of 5 males and 28 females, along with the subject teacher as the action implementer.

Data collection utilized both test and non-test instruments. Test instruments comprised multiple-choice questions administered after each cycle's actions to measure student learning outcomes. Non-test instruments included teacher observation sheets for assessing pedagogical

competencies and student observation sheets for evaluating learning activities. Data analysis employed both quantitative and qualitative approaches. Qualitative data were analyzed descriptively by classifying observation results into four categories: excellent, good, fair, and poor. This analysis assessed student activities during the learning process and teacher instructional competencies at each cycle's conclusion. Qualitative information was also obtained through completion percentages and observation result classifications. Meanwhile, quantitative data were analyzed by calculating average scores and student learning mastery percentages based on Minimum Mastery Criteria (KKM) at each cycle's end.

Results and Discussion

Research Results

As part of the learning evaluation process, observations were conducted on various important classroom aspects. This observation focus encompassed teacher competencies in managing learning, student engagement during the learning process, and cognitive learning achievement. Through this data, a comprehensive overview of learning implementation was expected to emerge. A summary of these observation results is presented in the following section:

Table 1
Summary of Teacher Instructional Skills Assessment Across Cycles I, II, and III Based on Minister of National Education Regulation No. 16 of 2007 concerning Academic Qualification Standards and Teacher Competencies

No.	Indicator	Cycle I	Cycle II	Cycle III
1.	Skill in opening lessons	2	3	4
2.	Skill in explaining material with video assistance	3	3	4
3.	Skill in creating variation in learning activities	2	4	4
4.	Skill in asking higher-order questions (Thinking)	2	3	4
5.	Skill in managing classroom effectively (Pairing)	3	3	4
6.	Skill in guiding small group and individual discussions (Sharing)	2	4	4
7.	Skill in providing reinforcement to student responses	3	3	3
8.	Skill in systematically closing lessons	2	3	3
	Total Score	19	26	30
	Average Score	2,37	3,25	3,75
	Category	Baik	Sangat Baik	Sangat Baik

As shown in Table 1, research employed teacher instructional skill classification based on a four-level scale, ranging from scores 1 to 4, developed with reference to learning observation instruments by Nanda et al. (2021) and Widodo (2020). This classification category was adapted to teacher pedagogical competency indicators as specified in Minister of National Education Regulation No. 16 of 2007 concerning Academic Qualification Standards and Teacher Competencies. The score classification categories are as follows: scores 3.51-4.00 (excellent), scores 2.51-3.50 (good), scores 1.51-2.50 (fair), and scores 1.00-1.50 (poor).

Based on observation results, teacher skills in teaching industrial relations materials using think-pair-share in Grade XI OABS learning at SMK Bhakti Karya Karanganyar improved across each cycle. Teacher skill scores increased by 7 points from cycle one to cycle two, with further improvement in cycle three adding 4 points from the previous cycle. Cycle three scores were classified as excellent, reflecting that teacher skills had achieved minimum success standards in the good category. Teacher skill indicators were developed based on fundamental teaching skill components, encompassing abilities to open and close lessons, ask questions, explain materials, manage classrooms, and guide small group discussions to enhance learning effectiveness (Irawati, 2020; Hamdani, 2019).

Improvements occurred as teachers made corrections in each cycle. In Cycle I, teachers were not yet optimal in opening and closing lessons, group discussions were ineffective, and questions posed did not elicit deep understanding. In Cycle II, teachers began creating learning variations, using higher-order questions, and more actively guiding small group discussions. Subsequently, in Cycle III, teachers successfully managed classrooms effectively, guided discussions systematically, opened and closed lessons appropriately, and explained materials clearly and engagingly. These skill improvements demonstrated increasing teacher proficiency in implementing video-based think-pair-share learning models, positively impacting student activity and learning outcome enhancement. Enhanced student activity results were accompanied by improved learning outcomes due to teacher competencies in managing learning activities. Table 2 presents the improvement in student activities during learning.

Table 2
Summary of Student Activity Assessment Across Cycles I, II, and III

No.	Indicator	Cycle I	Cycle II	Cycle III
1.	Enthusiasm at the beginning of learning activities	3,31	3,24	3.36
2.	Providing full attention to teacher explanations through learning videos	3,21	3,21	3,48
3.	Finding and understanding new knowledge from learning media related to materials	3,18	3,30	3,33
4.	Individual thinking (Thinking)	3,27	3,30	3,54
5.	Working in groups (Pairing)	3,24	3,42	3,39
6.	Presenting discussion results (Sharing)	3,24	3,27	3,45
7.	Responding to reinforcement provided by teachers	3,24	3,39	3,42
8.	Summarizing materials and completing evaluations	3,15	3,27	3,30
	Total Score	854	872	901
	Average Score	25,87	26,42	27,30
	Category	Baik	Baik	Sangat Baik

Student activities in learning demonstrated improvement from Cycle I through Cycle III. Average scores increased from 25.87 (good) to 27.30 (excellent). This classification refers to four categories: excellent (3.25-4.00), good (2.50-3.24), fair (1.75-2.49), and poor (1.00-1.74), as adapted from Minister of National Education Regulation No. 16 of 2007 and explained by Widodo (2020).

Enhanced student activities were influenced by improved learning strategies in each cycle. In Cycle I, some students remained passive and unaccustomed to the think-pair-share flow. In Cycle II, teachers emphasized discussion flow clarification and improved time management between sessions (thinking, pairing, and sharing), resulting in more active student discussions and increased responsiveness. In Cycle III, teachers added triggering questions at video beginnings and provided

recognition for student participation, leading to comprehensive enthusiasm and engagement improvements.

Overall, observations of student learning activities during industrial relations materials using video-based think-pair-share models showed consistent improvement across each cycle. Average student activity scores in Cycle I were 25.87, categorized as good, increasing to 26.42 in Cycle II while remaining in the good category, then significantly improving to 27.30 in Cycle III, classified as excellent.

Student activity indicators in this research encompassed (1) visual activities, (2) speaking activities, (3) listening activities, (4) writing activities, (5) drawing activities, (6) movement activities, (7) thinking activities, and (8) emotional activities. These align with Paul B. Diedrich's classification in Ridwan (2020), who categorized student activities into eight groups. Jayusman and Shavab (2020) expressed similar views regarding student learning activity indicators.

Table 3
Summary of Student Learning Achievement Across Cycles I, II, and III

No.	Description			
		Cycle I	Cycle II	Cycle III
1.	Class average score	50	65	80
2.	Highest student score achieved	60	70	90
3.	Lowest student score obtained	40	50	70
4.	Number of students achieving KKM	12	20	28
5.	Number of students scoring below KKM	21	13	5
6.	Learning mastery percentage	57,14%	60,60%	84,84%
	Total Score	854	872	901
	Average Score	25,87	26,42	27,30
	Category	Baik	Baik	Sangat Baik

Average student activity scores displayed in the learning achievement table were intended to demonstrate relationships between learning processes and student cognitive learning achievements. These scores were obtained from observations during learning using student activity observation sheets based on activity indicators according to Paul B. Diedrich (in Ridwan, 2020), including thinking, speaking, writing, listening, and group work. Average student activities increased from 25.87 (Cycle I) to 26.42 (Cycle II) and 27.30 (Cycle III). This improvement aligned with increased average student cognitive learning scores from 50 to 80, indicating that higher student activities during learning processes correspond to higher learning achievements.

Enhanced student learning achievements across each cycle were inseparable from improved learning strategies implemented by teachers. In Cycle I, learning methods remained unidirectional, resulting in suboptimal student understanding. Student average scores were recorded at 50 with learning mastery rates of 57.14%, equivalent to 12 students achieving KKM. Entering Cycle II, teachers began maximizing learning video utilization and activating group discussions, increasing student engagement. Average scores improved to 65 in Cycle II with learning mastery of 60.60%, equivalent to 20 students achieving mastery. In Cycle III, teachers added triggering questions and provided reinforcement for student responses, resulting in enhanced student focus, activity, and understanding of materials. This was reflected in increased average student scores and learning mastery percentages reaching 84.84%, meaning 28 students successfully met KKM requirements.

Discussion

Video media utilization supports think-pair-share model effectiveness in optimizing student learning achievement, particularly for Grade XI OABS industrial relations materials. Learning

media function as supporting tools facilitating the learning process for both students and teachers. This media presence expands teacher roles in delivering materials more engagingly and comprehensibly. Learning media utilization aims to integrate three main aspects: affective, cognitive, and psychomotor, playing strategic roles in supporting comprehensive learning process success. For industrial relations materials, learning videos contained industrial relations definitions, characteristics, disputes, principles, cooperation, and employment agreements. These videos enabled student understanding through their interactive and engaging nature. According to Arikunto (2015), the cognitive domain in Bloom's taxonomy comprises six levels: knowledge, comprehension, application, analysis, synthesis, and evaluation, where each level reflects thinking process complexity required in learning. Through these learning videos, students could acquire knowledge and understanding of industrial relations, subsequently conducting application, analysis, and evaluation through more directed think-pair-share activities. This condition aligned with improved student learning achievements evident from minimum mastery rates increasing from 12 students in Cycle I to 20 students in Cycle II and 28 students in Cycle III.

Teacher instructional skills in Cycle I remained suboptimal. Teachers were not yet fluent in opening and closing lessons and had not extensively used activity variations. Questions provided were also unable to encourage deeper student thinking, and group discussions remained ineffective. In Cycle II, changes occurred as teachers began adding video media to assist material explanations and actively guiding students during discussions. Questions asked directed toward critical thinking abilities. During Cycle III, teacher abilities further improved. Teachers could manage classrooms orderly, open and close lessons systematically, and guide discussions more purposefully. Overall, teacher instructional skills improved across each cycle, demonstrating successful reflection and improvement efforts.

Student activities during learning experienced clear development across each cycle. In Cycle I, some students remained silent and inactive due to unfamiliarity with the think-pair-share learning model. They appeared hesitant to discuss and were not fully focused during teacher explanations. Entering Cycle II, changes emerged. Teachers managed time better and provided clearer directions, enabling student involvement during individual thinking, peer discussions, and result presentations. In Cycle III, classroom atmosphere became more vibrant. Teachers provided engaging opening questions and appreciated active students, making students more enthusiastic, confident in expressing opinions, and more focused during learning. Overall, student activities increasingly improved from one cycle to the next.

Student learning achievements improved alongside enhanced teaching methods and increased student activity during learning. In Cycle I, student average scores remained low at 50, with only 12 students achieving mastery due to learning not yet actively involving students. In Cycle II, average scores increased to 65. Teachers began using learning videos and engaging students in group discussions, facilitating material comprehension. In Cycle III, average scores improved to 80, with most students achieving KKM. These improvements demonstrated that when students are actively involved and teachers can manage learning effectively, learning outcomes correspondingly improve.

Research findings indicate that video-based think-pair-share learning model implementation can enhance student learning outcomes in Industrial Relations subjects for Grade XI OABS students at SMK Bhakti Karya. These discoveries support research by Rachmawati and Erwin (2022), stating that think-pair-share model implementation with video support can strengthen student understanding in Indonesian Language subjects. Pamungkas et al. (2023) confirmed that this model significantly increases active student involvement and concept understanding. Other research by Ardianti et al. (2016) also demonstrated similar tendencies, showing improved student learning achievements in

living organism classification materials through similar model and media usage. Additionally, Kartikawati and Purwanti (2015) implemented think-pair-share approaches with video support at SDN Karangayu 02 Semarang City, with results showing increased student learning involvement, positively impacting learning outcome improvements and teacher skills in designing learning processes. Research conducted by Zulela et al. (2025) concluded that think-pair-share learning models proved effective in enhancing learning outcomes and student cooperation attitudes.

Conclusion

This research demonstrates that video-based Think-Pair-Share model implementation can enhance student learning outcomes, student activities, and teacher instructional skills for Grade XI OABS industrial relations materials at SMK Bhakti Karya Karanganyar. Based on think-pair-share stage implementation, one cycle consisted of two meetings where students engaged in individual thinking, paired discussions, and group result sharing. Research findings indicate that student learning outcomes improved across each cycle. In Cycle I, 15 students (51.72%) achieved learning mastery in the first meeting, increasing to 21 students (72.41%) in the second meeting. In Cycle II, 25 students (86.21%) achieved learning mastery in the first meeting, increasing to 27 students (93.10%) in the second meeting. Additionally, teacher instructional skills improved from an average of 2.37 (good category) to 3.75 (excellent category). Student activities during learning processes increased from an average of 25.87 to 27.30, demonstrating higher student competencies across cycles. Improvements in each cycle indicated that video-based think-pair-share learning methodology proved effective in enhancing student interest and improving material understanding. These results were supported by classroom observations where most students appeared more enthusiastic during discussions and demonstrated confidence when expressing opinions.

Research limitations include: (1) constrained implementation time limitations, (2) learning strategies requiring adjustment to individual student learning styles, and (3) research focus limited to one class and one learning material. Future researchers are encouraged to conduct follow-up studies on different materials and grade levels, provide more detailed descriptions particularly regarding success indicator coverage including affective and psychomotor aspects, and employ more varied learning strategies.

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